

**BI-WEEKLY PROGRESS REPORT NO. 6**

**OLD ROOSEVELT FIELD CONTAMINATED GROUNDWATER AREA SITE  
REMEDIAL ACTION - PHASE 1, WELL INSTALLATION  
GARDEN CITY, NASSAU COUNTY, NEW YORK**

Prepared for:  
U.S. Environmental Protection Agency  
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EPA Work Assignment No.	: 023-RARA-02PE
EPA Region	: 2
Contract No.	: EP-W-09-002
CDM Federal Programs Corporation	
Document No.	: 3320-023-00529
Prepared by	: CDM
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Date Prepared	: August 6, 2010

## **Bi-Weekly Progress Report No. 6**

### **Phase 1 – Wells Installation**

#### **1.0 Introduction**

Pursuant of the Work Assignment Form (WAF) Statement of Work (SOW), for Region 2 Contract EP-W-09-002 Work Assignment 023-RARA-02PE, CDM Federal Programs Corporation (CDM) is performing the Phase 1 (Wells Installation) Remedial Action (RA) at the Old Roosevelt Contaminated Groundwater Area Site. The Bi-Weekly Progress Report is intended to partially fulfill the requirements specified under WAF SOW for this assignment. This Bi-Weekly report is prepared for the work performed from July 12 to July 23, 2010.

The primary responsibility of the project geologist was to oversee all drilling and well installation activities to ensure that the work meets all requirements of the final Remedial Design specifications and is performed by the Subcontractor in accordance with all applicable quality assurance, health and safety, and regulatory requirements.

The work performed during this reporting period includes: the final grouting of extraction well EW-1D; installation of extraction well EW-1I. This work is summarized in further detail below. A list of the supporting documentation attached with this bi-weekly progress report is as follows:

- Attachment 1 - CDM's Daily Status Report
- Attachment 2 - CDM's Field Log Book notes
- Attachment 3 - Borehole log
- Attachment 4 - Photo log

#### **2.0 Personnel On-Site**

The following personnel were on site during this reporting period:

##### **CDM - Contractor**

Thomas Mathew	Site Manager
Frank Robinson	Project Geologist
Ali Rahmani	Project Engineer
Joe Button	QA Auditor

##### **Uni-Tech - Driller**

Butch Hitzelberger	Head Driller
Brad Barnes	Driller
Sean O'Rourke	Driller
Oscar Akins	Driller (Substitute/Second Shift)
Jay Blemings	Driller (Second Shift)
Sean Blemings	Driller (Second Shift)

##### **Intex - Temporary Water Treatment System**

Todd Daniel

### 3.0 Summary of Work Performed

The following is a brief summary of the field activities performed during this reporting period (refer to Attachments 1, 2 and 4 for Daily Status Report, log book notes, and photo log, respectively for each working day):

- Site Mobilization
  - FCI picked up three rollofs (#0901, #9617, and #9827) for disposal as non-hazardous waste.
  - FCI delivered two 20 cubic yard rollofs (#0333 and #09747) to be used at EW-1I.
  - Seville Central Mix Co. delivered a total of 12 cubic yards of Portland cement. 1,281 pounds (twenty 50 pound bags) of bentonite were added to the cement mixer truck to create cement/bentonite slurry for grouting extraction well EW-1I.
- Temporary Water Treatment System
  - Intex treated approximately 6,000 gallons of development water. Treated water was stored into the effluent Frac tank.
- Final grouting of extraction well EW-1D
  - Uni-Tech topped off the grout at EW-1D to 5 feet below grade.
  - Uni-Tech broke down the equipment from EW-1D and transported it to EW-1I. The drill rig was jacked down, the well casing and outer casing were cut down to grade, and the pipe from the portable pit to the surface casing was removed.
- Installation of extraction well EW-1I
  - To install the 16-inch diameter surface casing for EW-1I using mud rotary drilling, the set up activities included:
    - A 4-foot by 4-foot opening was made in the asphalt
    - Installation of a surface casing to 3 feet below grade
    - Installation of the portable mud pit
  - Uni-Tech drilled down to 82 feet at EW-1I using a 20-inch drill bit. A 16-inch steel outer casing was installed to 80 feet with the sections being welded together. The outer casing was then grouted in place using a cement/bentonite grout installed with a tremie pipe.
  - Uni-Tech retrofitted the drill rig for reverse mud rotary drilling below 80 feet at EW-1I.
  - Using reverse mud rotary, Uni-Tech drilled down to 350 below the ground surface from the bottom of the surface casing (80 feet). A clay layer at approximately 185 to 193 slowed progress as the drill string had to be pulled to clean out the drill bit.
  - Uni-Tech welded lifting tabs on the 6-inch stainless steel well construction material for EW-1I.
  - EW-1I was installed with a 60 foot, 8 inch diameter, stainless steel, 20 slot screen. The screen was set from 280-340 feet with a 5 foot sump set from 340-345 feet. The well casing was set from 280 feet to grade. The #1 gravel pack was installed from 266-345 feet and the #00 sand/bentonite slurry was installed from 261-266 feet, both being installed by tremie pipe. Centralizers were installed at the top and bottom of the screen and every 50 feet on the well casing.

- Uni-Tech tremie grouted EW-1I with a cement/bentonite grout.
- **Field Audit**
  - On July 20, 2010, CDM conducted a field audit of the work tasks associated with drilling activities. No major discrepancies were noted. The field audit report will be submitted in August 2010.
- **Health and Safety**
  - A tailgate H&S meeting was conducted each day before the start of work activities.

#### **4.0 Problems/Corrective Action**

As Uni-Tech was retrieving the drill rods out of EW-1I, the borehole collapsed at 290 feet due to a clay layer hydrating overnight, causing a suction effect as the drill bit was coming up. The borehole was then re-drilled from 290 to 350 feet.

#### **5.0 Deviations**

None noted for this period.

#### **6.0 Conclusions**

All RA construction work was completed in general accordance with RA Subcontract Documents and approved construction submittals. No issues were encountered during this reporting period.

**ATTACHMENT 1**  
**DAILY STATUS REPORT**

# Daily Status Report

**PROJECT: Old Roosevelt Field Site**

Date: 7-12-10

Day: 47 (Monday)

WEATHER: Hazy/Humid

TEMP: 76/90

WIND: Light from the SE

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech started to break down the equipment at EW-1D to move at EW-1I. The drill rig was jacked down to grade, the well casing and outer casing were cut down to grade and the pipe from the portable pit to the surface casing was removed.			
-FCI picked up three roll offs for disposal as non-hazardous waste. They were roll off numbers 0901, 9617 and 9827.			
-FCI dropped off an empty roll off (# 9747) at the extraction well area for use during drilling EW-1I.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-13-10

Day: 48 (Tuesday)

WEATHER: Overcast/T-storm

TEMP: 76/80

WIND: Light from the SW

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Oscar Akins		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech topped off the grout at EW-1D to 5 feet below grade.			
-Uni-Tech continued setting up at EW-1I to install the 16 inch surface casing to 80 feet using mud rotary by reconnecting the hose to the Kelly, opening a 4 X 4 foot opening in the asphalt, a surface casing was installed to 3 feet below grade and the portable pit was installed,			
-Sean O'Rourke was sick today and the union sent out Oscar Akins, Sean should be back on Thursday. Oscar has his OSHA 40 hour and 8 hour refresher but his medical is not current. Oscar will work in the exclusion zone until drilling starts then will work outside the zone.			
<b>WORK BEING INSPECTED:</b>			



# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-14-10

Day: 49 (Wednesday)

WEATHER: Overcast/Rain

TEMP: 76/81

WIND: Light from the NE

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Oscar Akins		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech removed 2 fence sections to the north and added 2 fence sections to the south to stay within the 170 foot limit allocated to the project.			
-Uni-Tech finished setting up to install the 16 inch outer casing at EW-11.			
-Uni-Tech drilled down to 30 feet using mud rotary with a 20 inch bit.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-15-10

Day: 50 (Thursday)

WEATHER: Mostly Cloudy

TEMP: 72/84

WIND: Light from the SE

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech drilled down to 82 feet at EW-11 using mud rotary with a 20 inch bit. The 16 inch steel outer casing was installed to 80 feet with the sections being welded together. The outer casing was then grouted in place using a cement/bentonite grout installed with a tremie pipe.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-16-10

Day: 51 (Friday)

WEATHER: Mostly Cloudy

TEMP: 77/86

WIND: Light from the SW

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech started to change over the mud rotary equipment over to reverse water to install EW-11.			
-FCI delivered a 20 yd3 roll off (#0333) to be used at EW-11.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-19-10

Day: 52 (Monday)

WEATHER: Mostly Cloudy/AM T-Storm

TEMP: 78/88

WIND: Light from the SW

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech finished setting up at EW-11 and drilled down to 114 feet from 80 feet (the bottom of the surface casing) using reverse water.			
-Worked stopped for 30 minutes in the morning due to a thunderstorm.			
-The parking lot was sealed over the weekend and both MW-01 wells were covered in sealant. Both well covers were opened and the sealant removed.			
<b>WORK BEING INSPECTED:</b>			



# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-20-10

Day: 53 (Tuesday)

WEATHER: Mostly Cloudy/AM T-Storm

TEMP: 70/87

WIND: Light from the NW

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson, Joe Button		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech drilled 100 feet using reverse water, from 114 feet to 214 feet. A clay layer at approximately 185 feet to 193 feet slowed progress today as the drill string had to be pulled to clean out the drill bit.			
-Uni-Tech welded lifting tabs on the 6 inch stainless steel well construction material for EW-11.			
-Joe Button conducted an audit of the work tasks done to date at the site. Only minor discrepancies were noted.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-21-10

Day: 54 (Wednesday)

WEATHER: Partly Cloudy

TEMP: 75/89

WIND: Light from the SW

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
Intex:	Todd Daniel		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig.			
-Tender truck.			
-Support truck.			
-Deere 310E backhoe.			
-8,500 gallon water tanker with Western-Star tractor.			
-Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details.			
-Uni-Tech drilled 136 feet using reverse water, from 214 feet to 350 feet.			
-Intex processed approximately 6,000 gallons of development water from the front Frac tank through the water treatment system and into the rear Frac tank.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:****PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:****GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

PROJECT: Old Roosevelt Field Site

Date: 7-22-10

Day: 55 (Thursday)

WEATHER: Partly Cloudy

TEMP: 75/85

WIND: Light from the South

<b>PERSONNEL ONSITE</b>			
CDM :	Frank Robinson		
Uni-Tech:	Butch Hitzelberger, Brad Barnes, Sean O'Rourke 2 <sup>nd</sup> shift crew: Jay Blemings, Sean Blemings, Oscar Akin		
<b>VISITORS</b>			
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>
1:30PM	Greg Wallace	Arrowhead	RA GWTS Subcontractor
1:30PM	Dough Ronk	Arrowhead	RA GWTS Subcontractor
3:30 PM	Thomas Mathew	CDM	
3:30 PM	Ali Rahmani	CDM	
<b>EQUIPMENT IN USE:</b>			
-Failing 1500 Drill rig. -Tender truck. -Support truck. -Deere 310E backhoe. -8,500 gallon water tanker with Western-Star tractor. -Trailer mounted pump.			
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>			
-A tailgate H&S meeting was conducted before the start of work activities. See below for details. -As Uni-Tech was pulling the drill rods out of EW-11, the borehole collapsed at 290 feet due to a clay layer hydrating overnight causing a suction effect as the drill bit was coming up. The borehole was then re-drilled from 290 to 350 feet. -EW-11 was installed with 60 feet of 8 inch 20 slot stainless steel screen set from 280 feet to 340 feet with a 5 foot sump set from 340 feet to 345 feet and the well casing was set from grade to 280 feet. The #1 gravel pack was installed from 266 to 345 feet and the #00 sand/bentonite slurry was installed from 261 to 266 feet, both being installed by tremie pipe. Centralizers were installed at the top and bottom of the screen and every 50 feet on the well casing. -Due to delay in setting the well because of borehole collapse, Uni-Tech brought in a 2 <sup>nd</sup> crew to complete the well installation. -Arrowhead was on site for a site walkover for the treatment system contract.			
<b>WORK BEING INSPECTED:</b>			

# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

**JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:**

-Daily tailgate H&S meeting topics covered:

Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.

**TESTING PERFORMED:**

**PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:** Bad threads 2 sections of 8 inch well casing.

**GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:****COMMUNICATION WITH CONTRACTOR STAFF:****MEETING:****ADDITIONAL ACTIVITIES AND REMARKS:**

By: Frank Robinson

Title: Project Geologist

# Daily Status Report

**PROJECT: Old Roosevelt Field Site**

Date: 7-23-10

Day: 56 (Friday)

WEATHER: Partly Cloudy

TEMP: 72/83

WIND: Light from the SW

<b>PERSONNEL ONSITE</b>				
CDM :		Frank Robinson		
Uni-Tech:		Butch Hitzelberger, Brad Barnes, Sean O'Rourke		
<b>VISITORS</b>				
<b>TIME</b>	<b>NAME</b>	<b>REPRESENTING</b>	<b>REMARKS</b>	
<b>EQUIPMENT IN USE:</b> -Failing 1500 Drill rig. -Tender truck. -Support truck. -Deere 310E backhoe. -8,500 gallon water tanker with Western-Star tractor. -Trailer mounted pump.				
<b>CONSTRUCTION ACTIVITIES COMPLETED AND/OR IN PROGRESS:</b>  -A tailgate H&S meeting was conducted before the start of work activities. See below for details. -Uni-Tech tremie grouted EW-1I with a cement/bentonite grout. Seville Central Mix Co. delivered a total of 12 yd3 of Portland cement. A total of 1,281 pounds of bentonite (twenty four 50 pound bags) was added to the cement mixer truck to create cement/bentonite slurry for grouting the well.				
<b>WORK BEING INSPECTED:</b>				



# Daily Status Report (Continued)

PROJECT: Old Roosevelt Field Site

<b>JOB SAFETY. INDICATE WHAT WAS CHECKED, RESULTS, AND CORRECTIVE ACTIONS TAKEN:</b> -Daily tailgate H&S meeting topics covered: Slips trips and falls: proper PPE (hardhat, safety glasses, steel toe shoes and safety vest): watch out for traffic in the parking lot when walking or moving vehicles and have a fire watch when performing hot work. Also, no smoking, drinking or eating in the exclusion zone is allowed.
<b>TESTING PERFORMED:</b>
<b>PROBLEM/DELAYS/CORRECTIVE ACTION TO BE TAKEN:</b>
<b>GREEN REMEDIATION PRACTICES IMPLEMENTED AND QUANTITIES TRACKED:</b>
<b>COMMUNICATION WITH CONTRACTOR STAFF:</b>
<b>MEETING:</b>
<b>ADDITIONAL ACTIVITIES AND REMARKS:</b>

By: Frank Robinson

Title: Project Geologist

**ATTACHMENT 2**  
**FIELD LOGBOOK NOTES**

Location ORK

MON  
7/12/10Project/Client RA/EPA  
EW-10/EW-11

- 0600- At Woodbury office copying log book  
 0630- F. Bohner on site  
 Partly Cloudy 75° winds calm  
 0655- Uni-Tech on site  
 Butch Hitzelberger, Brad Barnes, Sean O'Rourke  
 0700- Tailgate H+S meeting  
 - Will be breaking down equipment and moving over to EW-11 to set surface casing by mud rotary  
 0725- Pumping water out of portable pump into tender tank - will transfer to temp. water treatment system frac tank  
 0800- Pumping ~2000 gal into frac tank  
 0805- GROUT 70' below grade in surface casing (80' down)  
 0855- Spoke to Dan O'Rourke (COM): there are 2 wells at Garden City Pumping Station  
 Screens: 377'-377' 417' and 370-410'  
 0955- Spoke to Ali R. (COM), OK to bring grout up to 5' instead of 3' below grade as specified.  
 1055- Moving water tanker to new location for drilling EW-11  
 1100- S. O'Rourke leaving: NOT feeling well  
 JR 7/12/10

ORK

MON  
7/12/10Project/Client RA/EPA  
EW-10/EW-11

- 1250- 16" outcasing cut down to grade so rig can be moved.  
 1305- FCI on site w/ 2 tractor trailers to pick up 2 roll offs at staging area here for 1 hr before I went over to staging area and find the  
 1315- Moving Kila dust 30 yds roll off out of the way.  
 1335- FCI removing roll offs #3:  
 9617 and 0901 for non-haz disposal.  
 1400- FCI dropping off empty roll off # 9747 in ext. well area.  
~~1400- Got down FR~~  
 1400- At staging area, moving roll off # 9227 next to other roll off so it can be filled up for removal today.  
 1500- Rig mast down and on ground level well casing cut down to grade  
 1520- Leaving the site

7/12/10  
Justin Miller

ORF

Tues

Date 7/13/10

RA/EPH

EW-10 / EW-15

0630 - F. Robinson on site

Pt. Cloudy / humid 78° winds calm

0645 - Uni-Tech on site

Bates Hatzelburger, Brad Barner

0650 - H+S tailgate meeting

0715 - Cleaning out portable pit and filling up tender w/ water.

0755: Oscar Atkins, Local 138, on site

Sean not on site, sick. Has 4hr H+S but not 8hr refresher. Has medical

6 months ago, will bring copy of letter. Will leave site to take 8hr refresher.

0900 - Topping off grout at EW-010

1040 - finished topping off EW-10

1200 - Oscar Atkins back, has his 8hr refresher and a letter from his doctor, but not signed yet enough for medical clearance. We're not doing just setting up so he can work today.

1215 - Attaching hose back to Kelly.

1225 - Light rain starting

1255 - Rain getting heavier

1325 - Thunderstorm / heavy rain stopped work

1425 - Thunderstorm gone, still raining

Jacking asphalt apron for EW-II  
JR 7/13/10

ORF

Tues  
7/13/10

RA/EPH

EW-11

1445 - Digging out 4x4' area for conductor pipe

1550 - Sealing around surface casing with bentonite + hole plug

1600 Backfilling around surface casing

1640 - Portable pit in position

1705 - Leaving the site

7/13/10  
Frank Mc



ORF

Tues

Date 7/13/10

Project Client

RA/EPA

EW-10 / EW-11

0630. K. Robinson on site  
 Pt. Cloudy / humid 78° winds calm  
 0645. Uni-Tech on site  
 Butch Hitzelburger, Brad Barner  
 0650. H+S talgate meeting  
 0715. Cleaning out portable pit and filling up  
 tender w/water.  
 0755: Oscar Atkins, Local 138, on site  
 Sean not on site, sick. Has 4hr H+S  
 but not 8hr refresher. Has medical  
 6 months ago, will bring copy of letter.  
 Will leave site to take 8hr refresher.  
 0900. Topping off grout at EW-010  
 1040. Finished topping off EW-10  
 1200. Oscar Atkins back, has his 8hr refresher  
 and a letter from his doctor, but not significant  
 enough for medical clearance. We're not doing  
 just setting up so he can work today.  
 1215. Attaching hose back to Kelly.  
 1225. Light rain starting  
 1255. Rain getting heavier  
 1325. Thunderstorm / heavy rain stopped work  
 1425. Thunderstorm gone, still raining  
 Jackhammering asphalt apron for EW-11  
 JFR 7/13/10

ORF

Tues

Date 7/13/10

Project Client

RA/EPA

EW-11

1445. Digging out 4x4' area for  
 conductor pipe  
 1550. Sealing around surface casing  
 with bentonite + hole plug  
 1600 Backfilling around surface casing  
 1640. Portable pit in position  
 1705. Leaving the site

7/13/10  
 JFR

ORK

Wed

Date 7/14/10

RA/EPA

EW-II

- ( 0625- F. Robinson on site
- P. Overcast / Humid 78° winds calm
- ( 0635- Heavy Rain Starting
- ( 0645- Uni-Tech on site
- ( Butch H., Brad B. and Oscar Atkins
- ( 0650- Tailgate H+S meeting / light rain
- ( 0700- Heavy Rain again
- 0800- Moved 2 fence panels (2x') to the south to stay within 170' limit, will expand other end by 2 panels later
- 0915- Raining heavy again.
- 0945- Rain stopped, working again
- 1030- Rig raised up on timbers & mast up.
- 1200- Filling up tender w/ water and getting diesel mud pump set up.
- 1305- Calibrated Minirac 3000 + 1 Rac successfully  
See cal sheets for details
- 1430- Moved fence 2 panels to the south.
- 1445- Got Diesel mud pump going, had dead battery
- 1450- Mixing mud (Quick-Gel)
- ( 1520- Starting to drill down at EW-II
- ( using mud rotary w/ 20" bit to install 16" steel outer casing
- JR 7/14/10

Wed

Date 7/14/10

ORK

RA/EPA

EW-II

- 1530- Down to 20'
- 1615- Clearing out pit; raining again
- 1650- Down to 30', clearing out borehole.
- 1735- Leaving the site

7/14/10  
F. Robinson



0620 - F. Robinson on site  
 Overcast + 34° winds light from the east  
 0625 - U.S. Tech on site  
 B. Hurlinger, Brad Barnes, Sean O'Rourke  
 0630 - Tailgate HHS meeting  
 0640 - Calibrated min bar 3000 +  
 Vase successfully. See cal sheet for details  
 0700 - Clearing out pit  
 0710 - Mixing mud up  
 0715 - Had ~3.5' of settlement overnight  
 0815 - Added 20' drill rod  
 0825 - Only down again  
 0915 - Down to 50'  
 0930 - Welding 16" outer casing  
 1100 - Down to 70'  
 1155 - Down to 82'  
 1220 - Starting to pull drill rod at 6 inch/hr.  
 1245 - Rods + bit out of the borehole  
 1250 - Removing hose from belly - in the way of setting outer casing.  
 1320 - Lowering 1st 16" section of outer casing.  
 1335 - Welding 1st 2 section together.  
 1400 - Welding 2nd + 3rd section together.  
 1420 - Welding 3rd + 4th (last) section  
 3/2 ± 15/10

OKF  
 EA/CPA  
 3/15/10  
 Thru

1440 - Lowering last section down  
 1500 - Top section welded on  
 within of casing @ 80'  
 1600 - Starting to pour  
 1700 - Kind of gassy in place 16" surface  
 casing for EW-1I  
 1725 - Pumping mud fluid into stages  
 over face tank  
 1730 - Leaving the site

OKF  
 EA/CPA  
 3/15/10  
 Thru

3/15/10  
 Frank M.

Location ORF

Date Fri 7/16/20

Project / Client RA/EPA

EW-11

0615. F. Robinson on site  
 Overcast 77° winds calm  
 0630. Uni-Tech on site.  
 Ritch H., Brad B., Sean O'Rourke  
 0635. Tailgate H&S meeting  
 0645. Breaking down mud rotary equipment  
 to switch over to reverse water  
 0745. Emptying water from roll off, portable  
 pit and pump and cleaning out portable pit.  
 0915. Called Gene Streighten - roll off delivery  
 scheduled @ 0800, still 1-1.5 hrs away.  
 1120. Uni-Tech leaving, Sean O'Rourke still  
 here for when the roll off gets here.  
 1140. KCI on site w/ roll off # 0333  
 1210. KCI + Sean O'R. leaving site  
 1225. Leaving the site, site secure

7/16/20  
 F. Robinson

Location ORF

Date Mon 7/19/20

Project / Client RA/EPA

EW-11

0620. F. Robinson on site  
 4. Cloudy / Humid 80° winds calm  
 0630. Uni-Tech on site  
 Ritch Hatzelburger, Brad Barnes, Sean O'Rourke  
 0635. Tailgate H&S meeting - stay hydrated  
 0730. Cutting down 16" surface casing  
 0800. Filling up water tank w/ water  
 from tender.  
 0805. Welding diverter pipe to surface casing.  
 0815. Delivery of 3 pallets of cement  
 0840. Parking lot was revealed over  
 the weekend: had to clear MW-02 cloths  
 walls of sealant (opened & cleared sealant)  
 0910. Installing pipe from roll off port. pit  
 to diverter pipe.  
 1000. Filling up port. pit roll off w/ water  
 sealed door w/ bentonite  
 1005. Light rain  
 1020. Heavy rain & thunder. Stopped work  
 (thunderstorm)  
 1045. T-Storm over, resume work.  
 1120. Inserting 16" 15" bit in intercalary  
 7' w/ short drill rod.  
 1145. Calibrated Mini-Race 3000 and  
 FR 7/19/20



ORF

now

Date 7/19/10

RA/EPA

EW-11

1145 (cont.) VRae successfully - see cal sheet for details.

1225 - Attaching hoses to Kelly and fan rig to portable pit.

1335 - Starting to drill down @ EW-11

W/ reverse wash

1350 - Bringing a bit of gravel up

1500 - Down to 94'

1600 - Down to 114', lost section, clearing out borehole.

1620 - Leaving the site

7/19/10

Furt

ORF

Tues

Date 7/20/10

RA/EPA

EW-11

0550 - F. Robinson on site

1/4 Cloudy / humid 76° winds calm

0600 - Uni-Tech onsite

Butch Hattberg, Brad Berner, Sean O'Rourke

0605 - Tailgate H&S meeting

0610 - Moving well material on to trailer

0650 - Uni-Tech at extrinsic well site

0700 - Joe Button (COM) on site

to perform site audit.

0610 - Calibrated Min. Loc 3000 + VRae successfully - see cal sheet for details.

0800 - Down to 134'

0915 - Down to 154'

1015 - Down to 174'

1100 - Joe Button leaves the site

1115 - Welding lifting tabs on well material.

1245 - Slow going through a clay layer

1500 - Have to pull rods + clean bit

clogged w/ clay. ~ 190'

1540 - Bit on surface, totally clogged w/ a charcoal grey stiff clay. Cleaning out bit then will go back down.

1620 - Bit cleaned, rods going down.

1650 - Drilling again

JK 7/20/10

ORF

Tues

Date 7/20/10

RA/EPA

EW-2I

1720. Through clay layer at ~193'  
 changed rods @ 194', drilling better now.  
 1755. Down to 214', stopping for the day  
 drilled 100', from 114-214'.  
 1810. Leaving the site, water trickling in  
 pit & keep level up

7/20/10  
 Frank

Wed

Date 7/21/10

ORF

RA/EPA

EW-2I

- 0550 - F. Robinson on site  
 Uni-Tech on site  
 Butch H., Brad Barnes, Sean O'R.  
 Pt. Cloudy/Humid 76°  
 0555: Tailgate HOS meeting  
 0600 - Fueling drill rig.  
 0645 - Added 1 rod, starting to drill  
 down from 214'  
 0845 - More clay advanced ~10'.  
 1030. Down to 234'  
 1035 - Todd Daniel (ltdy) on site  
 Will pump water from front frac tank  
 through water treatment system to  
 rear frac tank.  
 1150 - Down to 254', drilling better,  
 through clay layers!  
 1210 - Drilling down from 254'  
 1215 - Spoke w/ Gene S.: will drop off  
 2 empty rod/lifts and pick 2 up for  
 disposal on Monday Am.  
 1235 - Down to 274'!  
 1245 - Drilling down from 274'  
 1325 - Light Rain  
 1335 - Rain over

FR 7/21/10



ORF

Wed

Date 7/21/10

BA/EPA

EW-11

1350 - Down to 294'

1355 - Intex finishing pumping water through treatment system. Pumped ~6,000 gallons

1405 - Drilling down from 294'

- Intex leaving the site.

1410 - Moving soil cuttings from fill roll off to empty one to even them out.

1445 - Down to 314'

1500 - Drilling down from 314'

1530 - Down to 334'

1550 - Drilling down from 334'

1600 - Down to 350' bottom of borehole

1630 - Leaving the site

7/21/10

F. H. H.

Thurs

Date 7/22/10

ORF

BA/EPA

EW-11

0550 - F. Robinson onsite

Clear 76° winds calm

Uni-Tech on site

Batch H., Brad B., Sean O.R.

0600 - Tailgate HOS meeting

0620 - Only 1' of settlement overnight will circulate water to clean at borehole before pulling drill rods.

0710 - Borehole clean, pulling drill rods

0725 - After pulling ~60' of rods, there was a suction in the borehole and the borehole collapsed, have to redrill down to 350'. Suction caused by clay expanding (hydrating).

0830 - Back down 40' cleaning at borehole a lot of clay. Batch called the office: will have a 2nd crew here on standby in case we have to go through the night to install the well.

0920 - Back down to 350', cleaning at borehole

0955 - Starting to pull drill rods again.

1115 - Removing Kelly hose

1130 - Bit out of the hole

Bottom sounded @ 346'

JR 7/22/10

- 1205- Attaching 5' sup to 20' section of  
8" Stainless Steel 30 slot screen
- 1215- Attaching centralizers to top of  
sup.
- 1300: Jay Blemings, Sean Blemings  
(Uni-Tech) on site to help install well.
- 1305- Greg Wallace + ~~Joe Carter~~ <sup>Joe Carter</sup> (Arrowhead)  
here for site walk around → Doug Rink
- 1440- Greg + Doug leave the site: Ali R.  
and Thomas M. stuck in traffic, will  
meet them in Port Jefferson.
- 1500- Picked up key from Town of Garden  
City operator to pumping station front gate.
- 1530- Ali R. + Thomas M. (CON) on site
- 1600- 2 20' S.S. casing sections had bad  
threads, took 2 sections from staging area  
and welding lifting pads on them. Uni-Tech  
office will decide what to do with 2 sections
- 1630- Well set: 60' of SS 30 slot screen  
Set 280-340' sup 340-345'
- Casing grade to 280', all 8" diam
- 1700- Jay + Sean Blemings back on site  
to do gravel installation
- 1750- Brian, Brad + Sean leaving the site  
JR 7/22/10

- 0555 1755- Starting to set traverse pipe (2")
- 1810- Oscar Atkins (Uni-Tech) Union  
Laborer on site (replacing Sean)
- 1845- Traverse pipe installed
- 1910- Starting to traverse #1 gravel pack
- 1920- Adding chlorine (granules) to  
sand pack as they go.
- 2000- 2 pallets - 60 bags installed
- 2030- Top of #1 Gravel = 266'
- 2035- Initially #00 sand/bentonite slurry
- 7/22/10 2055- 6 bags #00 sand  
from 261-266' (5')
- 2100- Sand line got stuck, had to  
cut it.
- 2110- Bringing traverse pipe up 28'
- 2135- Leaving the site

7/22/10  
JR Hink



LOCATION ORF

PROJECT / CLIENT RA/

FW-II 'A

FRI

Date 7/23/10

0605- F. Robinson

Pt. Cloudy 76° on site

0630- Uni-Tech winds c/w

Butch H., Brad on site

0635- Tailgate H., Sean O'R.

0645- Setting up meeting

21 trucks total <sup>7/23/10</sup> getting bags of bentonite <sup>7/23/10</sup> 20 yds. will add <sup>7/23/10</sup> 50 lb mix up to each cement truck to bring

0730- 1st Campes.

Seville Control - truck on site

516-586-5 Eric Corp

Addy 12 50 lb 23 or 516-293-6190

0745- Starting to put bags of bentonite &amp; mixer

0845- Finished for grout mix Flow II

0915- Finished plotting

Grout ~30' of tremie pipe

0935- Pumping out now

go to frac tank water for portable pit +

1030- Leaving in staging area.  
le site

7/23/10  
M

ORF

PROJECT / CLIENT RA/EPA

Date

**ATTACHMENT 3  
BOREHOLE LOG**

# CDM

environmental engineers, scientists,  
planners & management consultants

## WELL CONSTRUCTION SUMMARY

Project: ORF Client: EPA Well No: EW-1 I

### DRILLING SUMMARY

Drilling Co: Uni-Tech Drillers: Butch Hitzelberger  
Brad Barnes  
Drill Rig Make/Model: Faibing 1500  
Borehole Diameters: 20" / 18" Drilling Fluid: Water  
Bits/Depths: 20" to 80' / 16" to 350'  
Total Depth: 350' Depth to Water: 30'  
Supervisory Geologist: Frank Robinson

### WELL DESIGN

Casing Material: Stainless Steel Diameter: 8" Length: 280'  
Screen Material: Stainless Steel Diameter: 8" Length: 60'  
Slot Size: 30 Setting: 280 - 340  
Filter Material: #1 Setting: 266 - 345  
Seals Material: #00/Bentonite slurry Setting: 261 - 266  
Grout: Cement/Bentonite Setting: grade - 261  
Surface Casing Material: 16" steel Setting: grade - 80'

### TIME LOG

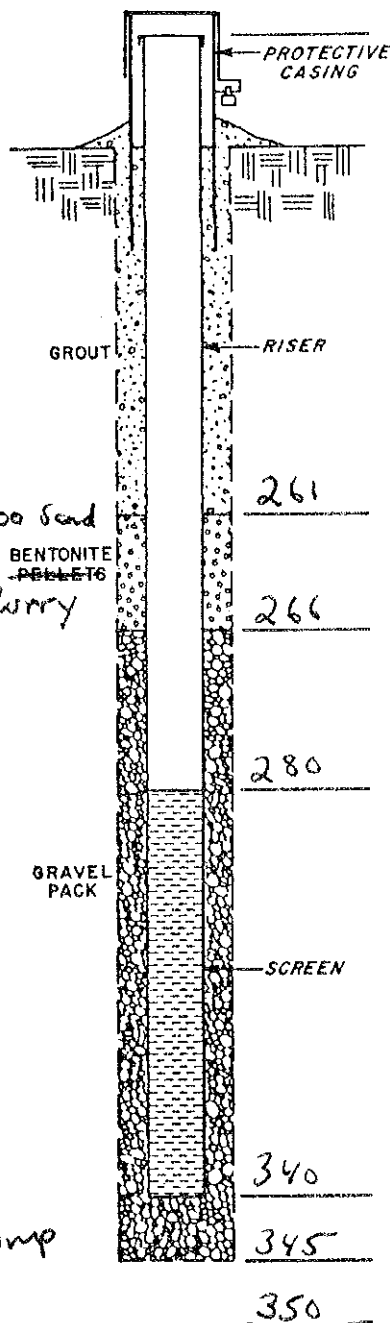
Started

Completed

Drilling: 7/14/10 1520 7/22/10 1130  
Installation: 7/22/10 1205 7/23/10 0845  
Development: \_\_\_\_\_

### WELL DEVELOPMENT

Method: \_\_\_\_\_  
Static Depth to Water: \_\_\_\_\_  
Pumping Depth to Water: \_\_\_\_\_  
Pumping Rate: \_\_\_\_\_ Specific Capacity: \_\_\_\_\_  
Volume Pumped: \_\_\_\_\_



**ATTACHMENT 4**  
**PHOTO LOG**



## PHOTOLOG

**SITE NAME:** OLD ROOSEVELT FIELD SITE

CAMERA # Olympus D-560

[illegible]

**PHOTOLOG**

**SITE NAME:**      OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010114.jpg	Topping off grout at EW-1D.	07-13-10	Frank Robinson
P1010115.jpg	Portable pit and surface casing installed at EW-1I.	07-13-10	Frank Robinson

**PHOTOLOG**

**SITE NAME:** OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

<b>Photograph #</b>	<b>Description</b>	<b>Date/Time</b>	<b>Photographer</b>
P1010116.jpg	20-inch bit used to drill outer casing borehole atEW-1I.	07-14-10	Frank Robinson
P1010117.jpg	Drilling at EW-1I using mud rotary for outer casing.	07-14-10	Frank Robinson

## PHOTOLOG

**SITE NAME:** OLD ROOSEVELT FIELD SITE

CAMERA # Olympus D-560

[illegible]

**PHOTOLOG**

**SITE NAME:** OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010120.jpg	20 yd3 roll off delivered by FCI ( in foreground)	07-16-10	Frank Robinson

**PHOTOLOG**

**SITE NAME:**      OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010121.jpg	Drilling set-up at EW-1I.	07-19-10	Frank Robinson
P1010122.jpg	16 inch bit used to drill EW-1I.	07-19-10	Frank Robinson

## PHOTOLOG

**SITE NAME:** OLD ROOSEVELT FIELD SITE

CAMERA # Olympus D-560

[illegible]

**PHOTOLOG**

**SITE NAME:** OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

<b>Photograph #</b>	<b>Description</b>	<b>Date/Time</b>	<b>Photographer</b>
P1010125.jpg	Drilling at EW-1I using reverse water.	07-21-10	Frank Robinson



**PHOTOLOG**

**SITE NAME:** OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

<b>Photograph #</b>	<b>Description</b>	<b>Date/Time</b>	<b>Photographer</b>
P1010126.jpg	Installing sump and screen at EW-01I.	07-22-10	Frank Robinson

**PHOTOLOG**

**SITE NAME:** OLD ROOSEVELT FIELD SITE

**CAMERA #** Olympus D-560

Photograph #	Description	Date/Time	Photographer
P1010127.jpg	Grouting EW-1I with a cement mixer.	07-23-10	Frank Robinson

## **PHOTOS 07-12-10**



**P1010112.jpg**

**FCI picking up 2 roll off's for non-hazardous disposal**



**P1010113.jpg**

**Drill rig down and both casings cut down to grade at EW-1D**

## **PHOTOS 07-13-10**



**P1010114.jpg**

**Topping off grout at EW-1D.**



**P1010115.jpg**

**Portable pit and surface casing installed at EW-1I.**



## **PHOTOS 07-14-10**



**P1010116.jpg**

**20-inch bit used to drill outer casing borehole at EW-11.**



**P1010117.jpg**

**Drilling at EW-11 using mud rotary for outer casing.**

**PHOTOS 07-15-10**



**P1010118.jpg**

**Drilling at EW-11 using mud rotary to install outer casing.**



**P1010119.jpg**

**Lowering second 16 inch outer casing to first section.**



**PHOTOS 07-16-10**



**P1010120.jpg**

**20 yd3 roll off delivered by FCI (in foreground)**

**PHOTOS 07-19-10**



**P1010121.jpg**

**Drilling set-up at E-1l.**



**P1010122.jpg**

**16 inch bit used to drill EW-1l.**



## **PHOTOS 07-20-10**



**P1010123.jpg**

**Drilling using reverse water at EW-11.**



**P1010124.jpg**

**Lifting tabs welded on well construction material for EW-11**

**PHOTOS 07-21-10**



**P1010125.jpg**

**Drilling using reverse water at EW-1I.**

**PHOTOS 07-22-10**



**P1010126.jpg**

**Installing sump and screen at EW-11.**



**PHOTOS 07-23-10**



**P1010127.jpg**

**Grouting EW-1I with a cement mixer.**